

"Boat with mobile transom"

The invention relates to seagoing or freshwater craft.

5 It relates to a craft of this kind having a cockpit and a swimstep, in particular a pleasure boat.

Some of these craft have on a rear portion of the floor a space called the cockpit that may or may not be covered and may or may not be provided with seats. This space is delimited at the rear end by a transom.

10 Moreover, this type of boat generally has a swimstep over the rear portion of the hull, close to the surface of the water.

The swimstep is used as a platform for swimming when the boat is hove to.

15 The transom delimiting the cockpit therefore serves as a barrier separating the cockpit from the swimstep.

Prior art boats having a cockpit and a swimstep are satisfactory in terms of providing a protected space and a platform for swimming.

20 Nevertheless, the object of the invention is to improve these boats, achieving the advantages described hereinafter.

To this end, the invention is directed to a pleasure boat including a cockpit, a swimstep and a transom separating the cockpit from the swimstep, characterized in that said transom is mounted to be mobile between a rear position in which the cockpit has a maximum area and the swimstep has a minimum area and a forward position in which the cockpit has a minimum area and the swimstep has a maximum area.

25 Note that the transom no longer contributes to the stiffness of the boat, which goes against the usual forms of construction, in which the transom, or at least the base thereof, is joined to the hull of the boat.

35 The mobile transom means that more space may be

allocated to the swimstep or to the cockpit, respectively, at different times.

Users of a nautical craft having a cockpit and a swimstep do not occupy the two spaces at the same time.

5           When the craft is under way, the swimstep space is unoccupied, whereas it becomes much more occupied when the craft is hove to, either moored or berthed, in particular when swimming or when disembarking the occupants, whereas the cockpit tends to remain unoccupied.

10           Now, space being always at a premium on a craft, the above arrangement has the advantage of expanding the space preferred by the occupants at a particular time, to the detriment of the other space. This makes a craft of given dimensions more comfortable, achieving a level of  
15           comfort corresponding to that of a larger craft.

          What is more, the invention provides an economic advantage to any owner of a craft fitted with it, both at the time of acquiring it and subsequently.

          On acquiring the craft, once he has decided on the  
20           level of comfort he requires, the owner can choose a boat that is smaller and therefore less costly than one not conforming to the invention that he would have to buy to benefit from a comparable level of comfort; subsequently, throughout the service life of the craft, the owner will be  
25           able to set less funds aside for the inevitable costs: berthing, storage on dry land, insurance, maintenance and after sales service.

          In one embodiment, the floor of the cockpit and the swimstep are aligned with each other.

30           This means that the designer of the craft has to provide only one surface forming both the floor of the cockpit and the swimstep, rather than having to provide a gentle transition between two floors of different heights.

          To make the transom mobile, it may be mounted on  
35           one or more slides disposed in the longitudinal direction

of the boat.

This is a simple way to enable effortless movement of the transom, since it makes it unnecessary to lift it.

Moreover, the slide may comprise two longitudinal  
5 grooves formed in the floor of the boat.

Using two grooves provides a slide that is concealed within the floor, rather than projecting from it, and a cover that partially covers the open sides of the grooves may be added for greater safety.

10 Moreover, the transom may comprise two carriages provided with rollers that engage in said grooves, the bottom of the grooves forming a lower track for the rollers.

On the one hand, the roller carriages can each be  
15 provided with a plurality of rollers and on the other hand, each of the rollers can have a plurality of bearing points to ensure that the transom is stable, both when stationary and when sliding.

For the same reasons, said grooves may  
20 advantageously include an upper cover so that said rollers are contained between said lower track and an upper track.

In one embodiment, the boat further includes immobilizing means for preventing movement of the transom.

The immobilizing means prevent unintentional  
25 movement of the transom caused by movement of the boat, for example. To this end they may cooperate, where applicable, with the bearing points and with the tracks referred to above.

In another embodiment, a portion of the transom is  
30 mobile relative to the remainder of the transom in order to form a door between the cockpit and the swimstep.

A door of this kind is a comfort element, delimiting a passage and avoiding the need to step over the transom to go from the cockpit to the swimstep and vice  
35 versa.

Said door may advantageously be formed by one lateral end of the transom attached to the remainder of the transom by a hinge so as to open toward the interior of the cockpit.

5           Opening toward the interior of the cockpit guarantees the safety of persons in the cockpit since the door cannot be opened by thoughtlessly leaning on it, as it must be opened by intentional pulling on it.

10           Other features and advantages of the invention will become apparent in the light of the following description of a preferred embodiment of the invention, provided by way of nonlimiting example, the description being given with reference to the appended drawings, in which:

15           - figure 1 is a 3/4 overall rear perspective view of a boat of the invention;

            - figure 2 is a perspective view of the stern of the boat from figure 1, the transom being in a rear position and the transom door not being shown;

20           - figure 3 is a view similar to figure 2 with the transom in a forward position;

            - figure 4 is an exploded perspective view showing the transom and the roller carriages attached thereto;

25           - figure 5 is a perspective view of the transom mounted on roller carriages to slide in two grooves in the floor of the craft;

            - figure 6 is a detail view in section showing the profile of a roller engaged in a groove; and

30           - figure 7 is a partial perspective view of the stern of the boat from figure 1, showing the transom in the rear position, the door closed, and, in the frame E, the locking system and its locations.

Figure 1 shows in perspective a pleasure boat 1. It has in its rear portion a cockpit 2 and a swimstep 3 separated from each other by a transom 4.

35           This transom 4 includes a door 5 which, when closed

(figures 1 and 7), extends the transom 4 to form a barrier closing off the stern of the boat 1.

Referring to figures 2 and 3, it is apparent that the cockpit 2 and the swimstep 3 are aligned, i.e. that a  
5 single floor 6 constitutes the floor of the cockpit 2 on one side of the transom 4 and the floor of the swimstep 3 on the other side of the transom 4.

In the final analysis, the cockpit 2 and the swimstep 3 are one and the same space, being simply  
10 partitioned by the transom 4. According to the invention, the transom 4 is mobile longitudinally.

To this end, two grooves 7 are formed in the floor 6 to allow the transom 4 to slide on the floor 6 in the longitudinal direction D of the boat (figure 3).

15 Roller carriages 8, in this case two, are fixed to the edge of the transom 4 (figure 4). Each of the carriages 8 has two rollers 9 engaging in the aforementioned grooves 7 (figure 5), the rollers bearing on the bottom of the grooves 7.

20 Figure 6 is a view in section in a plane perpendicular to the floor 6 and passing through the rotation axis of one of the rollers 9. Thus the structure of a roller carriage 8 can be seen.

As seen in this view, the carriage 8 includes a  
25 body 10, an axle 11, and a roller 9.

The body 10 has an L-shaped cross section so that it can be fixed to the edge of the transom 4 and extend perpendicularly to that edge.

The axle 11 is a shaft extending perpendicularly to  
30 the body 10. Rotatably mounted on the axle 11 is a roller 9 whose concave profile provides two bearing points 12 on the bottom of the groove 7.

The groove 7 is partly covered by a longitudinal cover 13 fixed to the floor 6 for safety reasons as much as  
35 for reasons of comfort. Only a slot 14 through which the

body 10 of the roller carriage 8 can pass is left open.

The transom 4 therefore rests on eight bearing points 12 (there are four rollers each providing two bearing points) for good stability and sliding without jamming, while the covers 13 prevent unintentional lifting of the transom 4.

The boat 1 is further provided with means for immobilizing the transom 4 in a given position. Bolts 15 are provided on the transom 4 (see figure 7) and keepers 16 are placed on the floor 6 and on lateral uprights 17 of the hull, in line with the bolts 15.

A set of keepers 16 is needed at each position in which it is required to lock the transom 4.

In a variant that is not shown, the keepers and the bolts are interchanged.

Moreover, and still with reference to figure 7, the door 5 is advantageously connected to the transom 4 by hinges so that it can be closed in alignment with the transom 4 (figures 1 and 7) or be opened toward the interior of the cockpit, folding against the transom 4.

Figures 2 and 3 give an idea of the stern of the boat 1 when the door 5 is open, although the door 5 is not shown to clarify the figure.

The resulting passage allows persons to circulate between the cockpit 2 and the swimstep 3.

Thus the boat 1 described here has a rear portion that can be "modulated" and may be used in the manner described next.

The mobility of the transom 4 means that the partition defining the cockpit 2 and the swimstep 3 can be moved, to the detriment of the one or the other, as a function of how the boat is being used at a given time.

In figure 1, the transom 4 is in the rear position. This is the position closest to the stern that the transom 4 is able to assume, the cockpit 2 then having a maximum

area and the swimstep 3 a minimum area.

Thus figure 1 shows a swimstep 3 reduced to a simple rim hardly projecting from the hull at all.

5 The transom can be locked in this rear position, in the manner previously referred to, by the bolts 15 and a set of keepers 16 disposed so as to cooperate with the bolts 15 when the transom 4 is in this rear position.

10 In the configuration of the boat 1 required for navigation, the transom 4 is locked in the rear position and the door 5 is closed.

The passengers on the boat 1 can then use the cockpit 2 in complete safety, the swimstep 3 being unused during navigation and the space it takes up being used to enlarge the cockpit 2.

15 The rear position of the transom 4 is also that shown in figures 2 and 7.

20 Figure 3, on the other hand, shows the transom 4 in the forward position, this configuration corresponding to a phase during which the boat 1 is hove to, in port or in calm water.

25 In contrast to the rear position, here the space in the cockpit 2 is reduced to open up a swimstep 3 that is sufficiently large to allow passengers to swim or to sit near the water, advantageously obtaining access to the swimstep 3 via the door 5.

As for the rear position, the transom can be locked in the forward position by an additional set of keepers 16 disposed to cooperate with the bolts 15 when the transom 4 is in this forward position.

30 Apart from these two extreme positions, the transom 4 can assume any intermediate position providing an adequate compromise at a given time between the space in the cockpit 2 and the space on the swimstep 3, which position may be indicated by other locking means.

35 Alternative embodiments may be envisaged that do

not depart from the scope of the invention. In particular, the means for immobilizing the transom 4 may be releasable brake means, for example, the door 5 may be a retractable telescopic barrier, or the transom 4 may move along lateral slides or any other system.